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<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [12/2022 - ]
<b>Title:</b> M20A-FXS (LUBRICATION): OIL PRESSURE AND TEMPERATURE SENSOR: ON-VEHICLE INSPECTION; 2023 - 2024 MY Prius Prius Prime [12/2022 - ]		

## ON-VEHICLE INSPECTION

### CAUTION / NOTICE / HINT

#### **CAUTION:**

- To prevent burns, do not touch the engine, exhaust manifold or other high temperature components while the



engine is hot.

- To prevent burns, do not remove the oil pressure and temperature sensor while the engine is hot.



## PROCEDURE

### **1. INSPECT OIL PRESSURE AND TEMPERATURE SENSOR**

Pre-procedure1

- Disconnect the oil pressure control valve assembly connector.

#### **HINT:**

By disconnecting the oil pressure control valve assembly connector, the non-regulated oil pressure can be measured.

- Read the value displayed on the GTS.
  - Put the engine in inspection mode (Maintenance Mode).

**Powertrain > Hybrid Control > Utility**

TESTER DISPLAY
Inspection Mode

(2) Start the engine.

(3) With the engine oil temperature at 75 to 85°C (167 to 185°F), read the "Engine Oil Pressure" with the engine speed at 2500 rpm.

#### Powertrain > Engine > Data List

TESTER DISPLAY
Engine Speed
Engine Oil Temperature Sensor
Engine Oil Pressure

(c) Read the oil pressure using an oil pressure gauge with adapter.

(1) Remove the oil pressure and temperature sensor.

#### CAUTION:

Make sure the engine is cold when removing the oil pressure and temperature sensor to prevent burns caused by hot engine oil.

#### HINT:

[Click here](#) **INFO**

(2) Install the oil pressure gauge with adapter.

#### NOTICE:

Clean the hose and adapter of the oil pressure gauge before and after measurement.



(3) Put the engine in inspection mode (Maintenance Mode).

#### Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Inspection Mode

(4) Start the engine.

(5) Maintain "Coolant Temperature" at 90 to 95°C (194 to 203°F) for 3 minutes, and then read the oil pressure gauge value at 2500 rpm.

### Powertrain > Engine > Data List

TESTER DISPLAY
Engine Speed
Coolant Temperature

#### HINT:

- When the engine oil pressure and temperature sensor is removed, the engine oil temperature cannot be checked, so refer to "Coolant Temperature".
- Race the engine as necessary to maintain "Coolant Temperature" at 90 to 95°C (194 to 203°F).
- If maintained for 3 minutes or more, the engine oil temperature may exceed 85°C (185°F).

#### Procedure1

(d) Compare the Data List value and the oil pressure gauge reading.

OK:

SPECIFIED CONDITION
Data List value and gauge reading are within +/-50 kPa (7.3 psi) of each other

#### Post-procedure1

(e) Remove the oil pressure gauge with the adapter.

#### CAUTION:

Removing the oil pressure gauge with adapter while the engine is hot could result in burns caused by contact with hot engine oil.

(f) Install the oil pressure and temperature sensor.

#### HINT:

[Click here](#) 

(g) Connect the oil pressure control valve assembly connector.

#### HINT:

Be sure to clear the DTCs after reinstalling the oil pressure and temperature sensor or reconnecting the oil pressure and temperature sensor or oil pressure control valve assembly connector, as DTCs may be stored.

